

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) Hybrid electrical-optical cable for overhead installations, comprising three insulated phase conductors helically wound around a supporting rope, wherein said supporting rope comprises:

at least one optical fibre element comprising at least one tubular element containing at least one optical fibre;

a tubular structure containing said at least one optical element, said tubular structure being made from a material having a high mechanical modulus to resist transverse compression;

a supporting structure resistant to longitudinal tension placed externally to said tubular structure.

2. (Previously Presented) Cable according to claim 1, wherein the material of said tubular structure is selected from (a) metals, (b) metal alloys, and (c) high-modulus polymers.

3. (Original) Cable according to claim 2, wherein said tubular structure is made from aluminum or stainless steel.

4. (Previously Presented) Cable according to claim 2, wherein said high-modulus polymers comprise polypropylene, modified polypropylene, polybutylene terephthalate, polyether imides or polyether sulphones.

5. (Original) Cable according to claim 1, wherein said tubular structure is made from an expanded polymer.

6. (Previously Presented) Cable according to claim 5, wherein said expanded polymer is selected from (a) olefin polymers and (b) olefin copolymers.

7. (Original) Cable according to claim 6, wherein said expanded polymer comprises polypropylene.

8. (Previously Presented) Cable according to claim 1, wherein the ratio between the diameter of said supporting rope and the diameter of each insulated conductor is predetermined so as to make said rope extractable from said helically wound insulated conductors.

9. (Original) Cable according to claim 8, wherein said ratio is greater than 0.3.

10. (Original) Cable according to claim 9, wherein said ratio is from 0.4 to 1.5.

11. (Previously Presented) Cable according to claim 1, wherein the insulated conductors are wound around said supporting rope with a predetermined pitch so as to make the cable self-sustaining.

12. (Original) Cable according to claim 11, wherein said pitch is from about 10 to 50 times the diameter of each insulated conductor.

13. (Previously Presented) Cable according to claim 1, wherein the supporting structure comprises an armour comprising one or more layers of metal wires helically stranded around said tubular structure.

14. (Original) Cable according to claim 13, wherein said metal wires are made from steel.

15. (Original) Cable according to claim 14, wherein said metal wires are made from aluminum-coated or zinc-plated steel.

16. (Original) Cable according to claim 13, wherein said metal wires are made from an aluminum alloy.

17. (Previously Presented) Cable according to claim 1, wherein said supporting structure is coated by an electrically insulating layer.

18. (Previously Presented) Cable according to claim 1, wherein said optical fibre element comprises a central reinforcing element around which one or more tubular elements, containing one or more optical fibres immersed in a buffering filler, are disposed.

19. (Currently Amended) Cable according to claim 1, wherein said at least one optical fibre element further comprises a central reinforcing element around which is disposed a grooved core in which are formed externally one or more grooves which extend longitudinally along the outer surface of said core, said grooves being filled with a buffering filler in which one or more of said optical fibres are housed.

20. (Currently Amended) Cable according to claim 1, wherein said ~~optical fibre element comprises a tubular element containing one or more~~ at least one optical fibre[[s]] is immersed in a buffering filler.

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21. (Original) Optical fibre element comprising at least one optical fibre coated by at least a containing layer, said optical fibre element being fitted in a tubular structure made from an expanded polymeric material.

22. (Previously Presented) Optical fibre element according to claim 21, wherein said polymeric material is selected from (a) olefin polymers and (b) olefin copolymers.

23. (Previously Presented) Optical fibre element according to claim 22, wherein said polymeric material comprises polypropylene.

24. (Previously Presented) Optical fibre element according to claim 21, wherein said polymeric material has a degree of expansion from 20% to 3000%.

25. (Previously Presented) Optical fibre element according to claim 24, wherein said polymeric material has a degree of expansion from 30% to 500%.

26. (Previously Presented) Optical fibre element according to claim 21, wherein before expansion said polymeric material has a flexural modulus at room temperature between 200 and 2000 MPa.

27. (Original) Optical fibre element according to claim 26, wherein said flexural modulus is between 400 and 2000 MPa.

28. (Currently Amended) Overhead system for electrical power distribution and for telecommunications, comprising a cable comprising three insulated phase conductors ~~would~~ wound around a supporting rope, said cable being fixed between sustaining structures by mooring means operating on said supporting rope,

characterized in that said supporting rope comprises at least one optical fibre element fitted in a tubular structure resisting to transverse compression.

29. (Currently Amended) Method for suspending a hybrid electrical-optical cable to an overhead line, said cable comprising:

- three insulated phase conductors helically wound around a supporting rope,
- a tubular structure made of a high mechanical modulus material suitable for containing at least one optical element, said at least one optical element comprising at least one tubular element containing at least one optical fibre, and

- a supporting structure placed externally to said tubular structure, wherein said method comprises:
 - pushing at least one of the three insulated conductors so as to make the supporting rope accessible from the outside;
 - hooking the supporting rope by a hooking means;
 - extracting the supporting rope by the hooking means from the wound insulated conductors for a predetermined length;
 - clamping the extracted length of the supporting rope by a mooring means;
 - releasing the supporting rope from the hooking means; and
 - suspending the cable to sustaining structures of the overhead line by the mooring means.

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